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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,120	06/22/2000	ROBERT LIEBL	P00,1291	7874

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225 FRANKLIN ST  
BOSTON, MA 02110

EXAMINER
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NGUYEN, QUYNH H

ART UNIT	PAPER NUMBER
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2642

16

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/582,120

Applicant(s)

LIEBL, ROBERT

Examiner

Quynh H Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/22/2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 103***

2. Claims 18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ewin (U.S. Patent 3,536,842) in view of Microsoft Press Computer Dictionary, Published by Microsoft Press in 1997.

Regarding claim 18, Ewin teaches information recorded in the trunk history memory is used during route selection (col. 3, line 73 through col. 4, line 2). Furthermore, Ewin teaches determining is made from the information in the history trunk memory based on priority classification on whether access to the selected trunk route is permitted or denied (col. 4, lines 51-65 and col. 5, lines 14-23).

Ewin does not teach "determining whether a connecting path to a requested destination node of the communication network is stored in second memory ("cache"), if not, determining and storing the connecting path in order to set up the determined connecting path to the requested destination node".

In Microsoft Press Computer Dictionary, Published by Microsoft Press in 1997, page 72, the definition of cache/cache memory refers to storing the contents of frequently accessed RAM locations and the addresses where these data are stored ("second memory"), when the processor references an address in memory, the cache checks to see whether it holds that address; if it does not, ("stored connecting path has

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not yet been identified in the second memory") a regular memory access occurs; if it does hold the address, the data is returned to the processor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate cache memory in Ewin's system because cache memory is useful when RAM accesses are slow, and always faster than main RAM memory, and in turn shortens connection times.

Claim 20 is rejected for the same reasons discussed above with respect to claim 18.

3. Claims 19, 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ewin (U.S. Patent 3,536,842) in view of Microsoft Press Computer Dictionary and further in view of Kelly et al. (U.S. Patent 4,862,496).

Regarding claim 19, Ewin does not teach when the corresponding connecting path leads from an originating node of the communication network to the requested destination node and specific transmission properties for a data transmission to the destination node are met.

Kelly teaches routing strategies have been considered and each exchange is lined to the central processor and transmits data on availability to the central processor (col. 1, lines 23-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the feature of determining specific transmission properties for a data transmission to the destination node before routing in Ewin's system in order to avoid a call lost or overflows.

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Regarding claim 27, Ewin does not teach a control unit in switching equipment that forms a network node of the communication network. Kelly teaches a central processor selects the path and transmits data (col. 1, lines 23-38).

Claims 28 and 29 are rejected for the same reasons discussed above with respect to claim 18. Furthermore, Ewin teaches trunk history memory with recorded information in the memory is used during route selection, and many types of storage devices ("first, second, and third memory") capable of storing information (col. 3, line 73 through col. 4, line 2 and lines 51-65). Ewin does not mention a control unit and line unit.

Kelly teaches a central processor ("control unit") for determining a suitable connecting path (col. 1, lines 23-43). Obviously that there is at least a line unit in a switch in order to configure an analog telephone lines or digital circuit to configure digital telephone lines

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the cache memory for storing connection paths in the switching equipment, for example, quickly retrieving data for assisting routing calls.

4. Claims 21-26, and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ewin (U.S. Patent 3,536,842) in view of Microsoft Press Computer Dictionary and further in view of Ash et al. (U.S. Patent 4,669,113).

Regarding claims 21-24 and 30-32, Ewin does not teach only a specific and maximum plurality of determined connecting paths are stored longest and used least.

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Ash suggests updating the routing sequence ("connecting path") is achieved by evaluating the least loaded path for each potential connection (Abstract, lines 1-17), which reads on claimed invention.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to develop routing algorithms in determining a connecting path in order to minimize potential blocking in the network.

Regarding claims 25, 26, 33, and 34, Ewin does not teach determining a connecting path to the requested destination node depends on the number of counted overflow cases and a specific time span. Ash teaches overflow counts are accumulated to develop traffic measures (col. 7, lines 10-18).

### ***Response to Arguments***

5. Applicant's arguments filed 11/20/03 have been fully considered but they are not persuasive. Applicant's arguments are addressed in the above claims rejections.

Applicant argues that Microsoft Press Computer Dictionary (MPCD) does not disclose determining a connection path using retrieved data if the connection path is not found in a second memory. MPCD defines cache/cache memory as storing the contents of frequently accessed RAM locations and the addresses where these data are stored ("second memory"), when the processor references an address in memory, the cache checks to see whether it holds that address; if it does not, ("stored connecting path has not yet been identified in the second memory") a regular memory access occurs; if it does hold the address, the data is returned to the processor. The 103

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rejection uses the MPCD reference to merely teach the use of cache. The MPCD is not used for teaching any connection path data. Such is taught by Ewin.

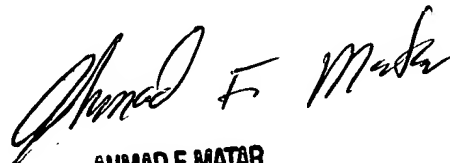
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh H. Nguyen whose telephone number is 703-305-5451. The examiner can normally be reached on Monday - Thursday from 6:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on (703) 305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

qhn

Quynh H. Nguyen  
March 31, 2004

  
AHMAD F. MATAR  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2700